

Water Use and Data Centers



Susquehanna Source Water Protection
Partnership Meeting – December 16, 2025

SRBC Regulatory Thresholds

- Groundwater Withdrawals
 - 100,000 gallons per day (gpd)
- Surface Water Withdrawals
 - 100,000 gpd
- Consumptive Use
 - 20,000 gpd
- Diversions
 - Into-Basin: Any Amount
 - Out-of-Basin: 20,000 gpd
- Natural Gas
 - Withdrawals & Consumptive Use: Any Amount



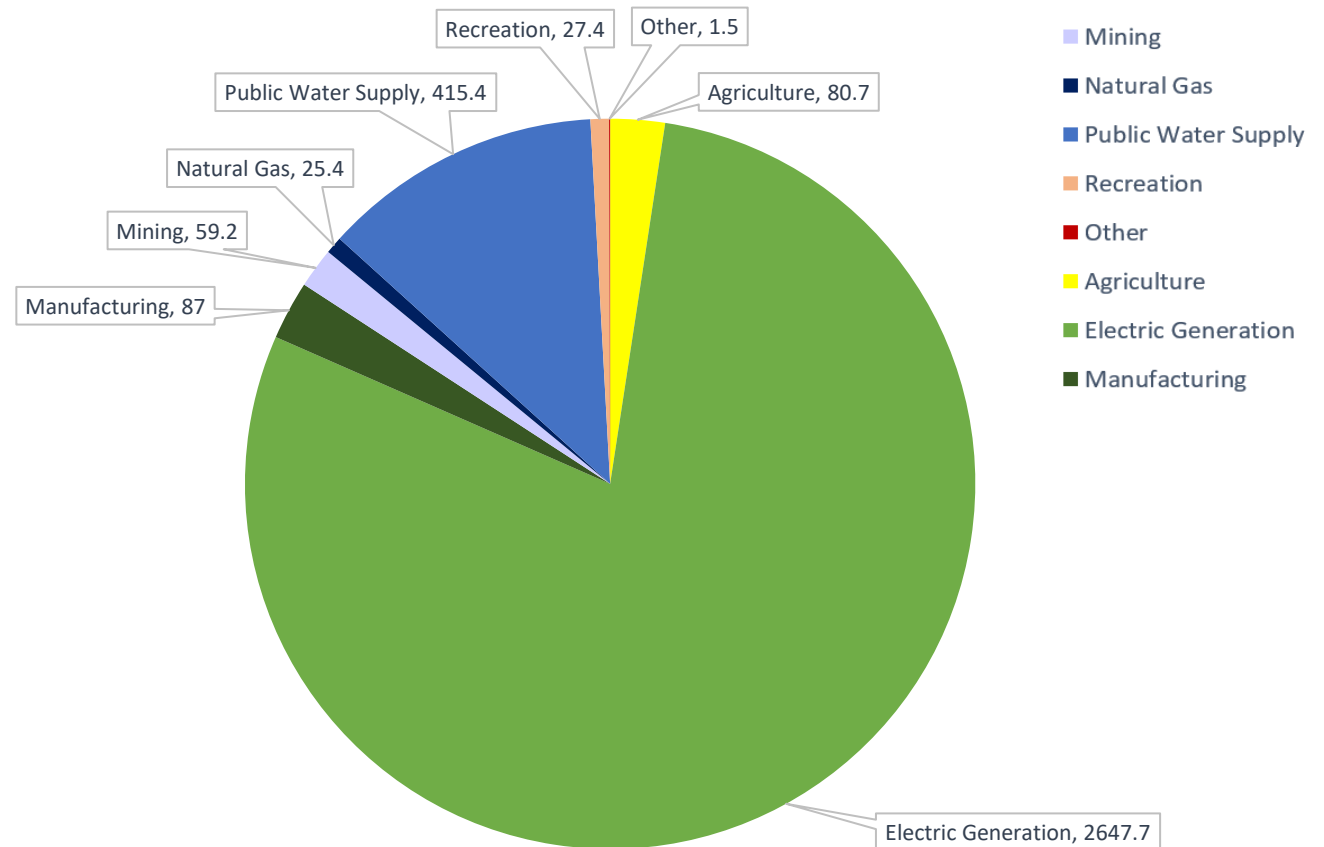
Who Uses Water?



2020 SRB Water Withdrawals

Total Water Withdrawals from the Susquehanna River Basin in 2020:

~3.3 Billion Gallons Per Day
(bgd) - all values based on
days used



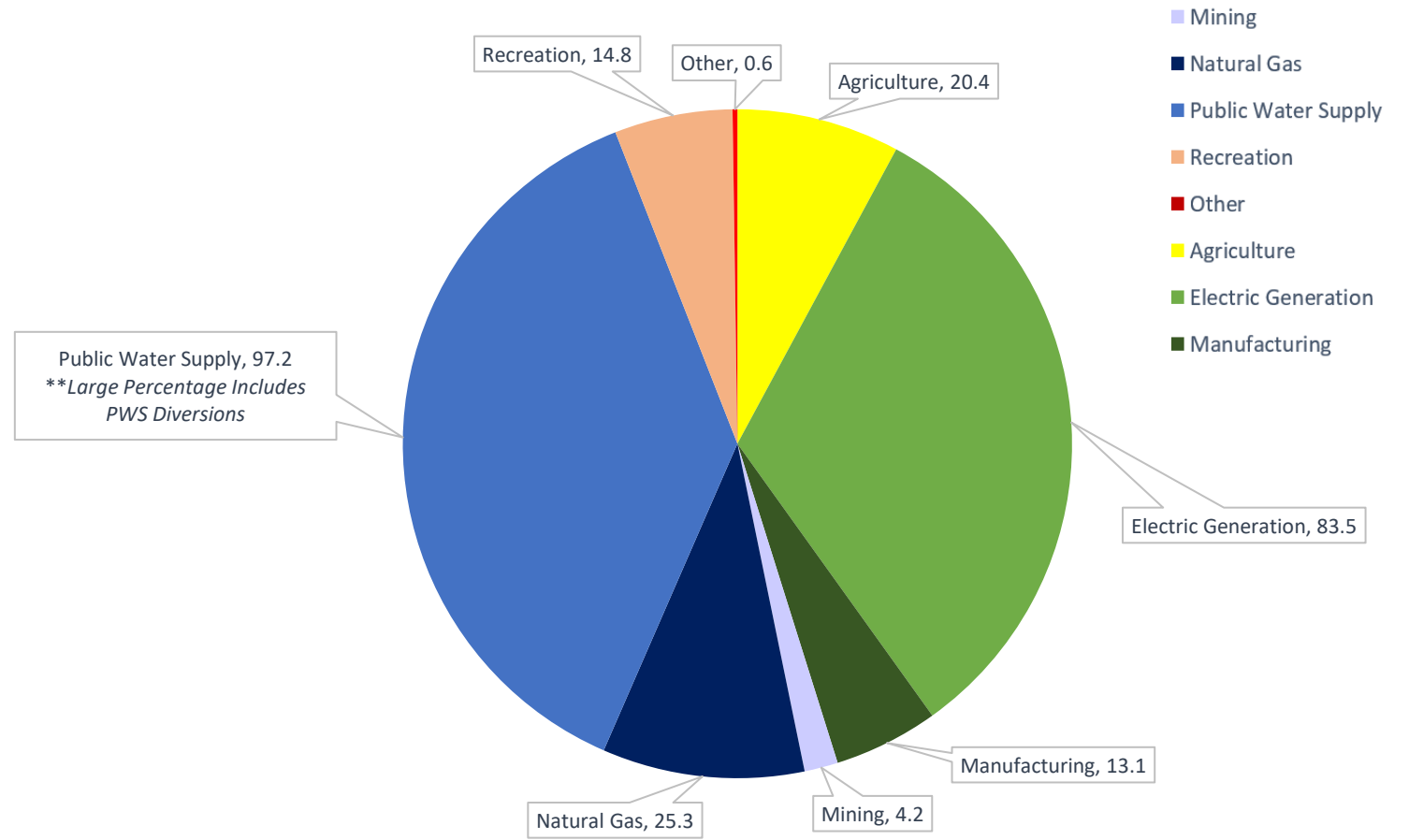
Consumptive Water Use = CU

Water that is used but not returned to rivers and streams because it is evaporated, transpired, incorporated into products, or otherwise lost.



2020 SRB Consumptive Use

**Total Consumptive Use from the
Susquehanna River Basin in
2020:**
~260 million gallons per day
(mgd) - all values based on days
used



DATA CENTER ACTIVITY IN THE SUSQUEHANNA BASIN (FROM A WATER MANAGEMENT PERSPECTIVE)

- **PRIMARY USE OF WATER IS FOR COOLING PURPOSES GIVEN HEAT GENERATED**
 - SOURCE OF WATER — SURFACEWATER OR GROUNDWATER WITHDRAWALS, PUBLIC WATER SUPPLY, TREATED WASTEWATER
 - CONSUMPTIVE USE OF WATER — WATER LOST THROUGH EVAPORATION DUE TO COOLING PROCESS
- **PROPOSED COOLING TECHNOLOGIES VARY GREATLY — RANGE FROM EVAPORATIVE COOLING (MORE WATER), HYBRID COOLING (LESS WATER), TO DRY COOLING (NO/MINIMAL WATER)**
 - SRBC IS ENCOURAGING CONSIDERATION OF WATER CONSERVATION TECHNOLOGY (RESOLUTION 2025-03)
- **FIRST APPROVAL OF WATER USE IN SEPTEMBER 2024 — 60,000 GALLONS CONSUMPTIVE USE PER DAY (NO WATER USED TO DATE FOR COOLING) — ANTICIPATED FULL EXPANSION WILL INCREASE WATER USE**
- **MAINTAINING A TRACKING LIST OF OVER 20 PROPOSED PROJECTS**

DATA CENTER ACTIVITY IN THE SUSQUEHANNA BASIN (FROM A WATER MANAGEMENT PERSPECTIVE)

- **COMMISSION UNDERSTANDING OF POTENTIAL WATER USE (AT PRESENT)**
 - COOLING APPROACH DICTATES WATER NEED (MILLIONS OF GALLONS TO LESS THAN 20,000 GALLONS PER DAY)
 - WATER NEEDS MAY ONLY BE WEEKS OF THE YEAR DURING THE WARMER MONTHS (SEASONAL DEMAND)
- **WATER USE IN CONTEXT (VERY GENERALLY) ...**
 - POWER GENERATION – 10'S OF THOUSANDS OF GPD TO 10S OF MILLIONS OF GALLONS PER DAY
 - FOOD INDUSTRY, FACILITY HEATING/COOLING, ETC. – 100S OF THOUSANDS OF GALLONS PER DAY
 - IRRIGATION FOR GOLF COURSES, ATHLETIC FIELDS, SNOWMAKING, ETC. – 10S OF THOUSANDS TO 100S OF THOUSANDS OF GALLONS PER DAY
- **ANTICIPATE INCREASED WATER USE TO MATCH POWER GENERATION NEEDED TO ACCOMMODATE DATA CENTERS**
- **ANY WITHDRAWAL OR CONSUMPTIVE USE EXCEEDING COMMISSION THRESHOLDS WILL REQUIRE APPROVAL AND DAILY REPORTING OF WITHDRAWAL AND CONSUMPTIVE USE**



QUESTIONS?

